

Appl. No. 10/511,996
Amendment to office action dated April 12, 2007

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In the Claims

The listing of claims will replace all prior versions, and listings, of claims in the application:

Claims 1-16 (cancelled)

17. (new) A method of installing a sensor in a well, comprising the steps of:
- positioning a casing having a sensor located in a carrier on the outside of a casing,
 - cementing the casing in position,
 - positioning a drilling tool inside the casing adjacent to the carrier,
 - drilling through the casing, carrier and cement into the formation surrounding the well so as to create a fluid communication path and a drawdown across the drilled hole producing reservoir fluid through the hole,
 - sealing the hole drilled in the casing with said tool, and
 - removing said tool from the well.
18. (new) The method as claimed in claim 17, further comprising making a direct measurement of formation pressure prior to sealing the hole.
19. (new) The method as claimed in claim 17, wherein the drilling and sealing operations are repeated at intervals throughout the life of the well.
20. (new) The method as claimed in claim 17, wherein the sensor is mounted in a chamber in the carrier.
21. (new) The method as claimed in claim 20, wherein the sensor is mounted at one end of an elongate chamber, the hole being drilled through the chamber at a point remote from the location of the sensor.

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- 22. (new) The method as claimed in claim 20, wherein a buffer tube is installed in the chamber which extends to the sensor, the hole being drilled through the buffer tube as well as the chamber.
- 23. (new) The method as claimed in claim 20 wherein the chamber is be filled with a permeable material, the hole being drilled through the permeable material.
- 24. (new) The method as claimed in claim 23 wherein the permeable material is selected from the list consisting of permeable cement and sintered metal.
- 25. (new) The method as claimed in claim 17, wherein the carrier comprises a permeable material encapsulating the sensor.
- 26. (new) The method as claimed in claim 17, comprising positioning the drilling and plugging tool inside the casing relative to the chamber through which it is to drill using an indexing system located inside the casing.
- 27. (new) The method as claimed in claim 26, further comprising using a measurement of formation properties to indicate the depth of the tool in the well.
- 28. (new) The method as claimed in claim 17, wherein a series of sensors are installed, each in a separate chamber on the outside of a respective casing.
- 29. (new) The method as claimed in claim 17, further comprising running a cable along the outside of the casing in the well from the or each sensor to the surface.
- 30. (new) The method as claimed in claim 29, wherein when installing the casing carrying sensors into the well, the casing can be rotated as it is inserted into the well such that the cable is wound in a spiral manner around the casing.
- 31. (new) The method as claimed in claim 29, comprising providing regularly spaced spacers on the cable which allow a space to be maintained between the cable and the outside of the casing